



DEFENSE INFORMATION SYSTEMS AGENCY

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IN REPLY
REFER TO: Joint Interoperability Test Command (JTE)

10 Aug 12

MEMORANDUM FOR DISTRIBUTION

SUBJECT: Extension of the Special Interoperability Test Certification of Interactive Intelligence® Inc. from Customer Interaction Center™ (CIC) Release 3.0 Software Update (SU) 14 to CIC Release 4.0 SU2

References: (a) DoD Directive 4630.05, "Interoperability and Supportability of Information Technology (IT) and National Security Systems (NSS)," 5 May 2004
(b) CJCSI 6212.01E, "Interoperability and Supportability of Information Technology and National Security Systems," 15 December 2008
(c) through (g), see Enclosure

1. References (a) and (b) establish the Defense Information Systems Agency (DISA), Joint Interoperability Test Command (JITC), as the responsible organization for interoperability test certification.

2. The Interactive Intelligence® Inc. CIC Release 3.0 SU9 is hereinafter referred to as the system under test (SUT). The SUT meets all of its critical interoperability requirements and is certified for joint use within the Defense Information System Network (DISN) as a Private Branch Exchange (PBX) 2. The PBX2 switches have no Military Unique Features (MUFs) and can only serve Department of Defense (DoD), non-DoD, non-governmental, and foreign government users having no missions or communications requirement to ever originate or receive Command and Control (C2) communications. Since PBX2s do not support MUF requirements detailed in Reference (c), connectivity to the DSN is not authorized until a waiver is granted by the Chairman of the Joint Chiefs of Staff (CJCS) for each site in accordance with Reference (d). No other configurations, features, or functions, except those cited within this report, are certified by the JITC. This certification expires upon changes that could affect interoperability, but no later than 5 April 2014, which is three years from the date the DISA Field Security Operations (FSO) provided a positive Certification and Accreditation (CA) recommendation for the original certification.

3. The extension of this certification is based upon Desktop Reviews (DTRs) 4 and 9. The original certification is based on interoperability testing, review of the vendor's Letters of Compliance (LoC), and FSO CA recommendation. Interoperability testing of the SUT was conducted at JITC's Global Information Grid Network Test Facility at Fort Huachuca, Arizona, from 22 through 30 July 2010 and documented in Reference (e). Review of vendor's LoC was completed on 30 March 2011. The FSO provided a positive CA recommendation on 5 April 2011 based on the security testing completed by DISA-led IA test teams and published in a separate report, Reference (f). The requested DTR updates are discussed in Table 1. JITC

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determined these DTRs required verification and validation (V&V) testing. JITC conducted V&V testing for DTRs 4 and 9 from 5 through 23 December 2011 and 30 April through 11 May 2012. The DISA CA approved the IA posture for DTRs 4 and 9 on 11 July 2012. Based on the results of this testing and the DISA CA approval of the IA posture for these DTRs, JITC approves these DTRs.

Table 1. SUT DTR Descriptions

Interactive Intelligence® Inc. Customer Interaction Center™ (CIC) Release 4.0 Software Updates			
DTR		DTR Description	
4		This DTR updates the SUT from software version CIC 3.0 SU14 to CIC 4.0 SU1. SU1 includes periodic maintenance updates. Additionally, this DTR includes the following: <ul style="list-style-type: none">• New Audio Codes M800 Line Side and Trunk Side Gateways.• Upgrades the server to Windows 2008 R2 64 bit and clients to Windows 7 64 bit.• Adds Polycom Sound Point IP IPv4 only end instruments.• Upgrades system to IPv6 dual stack capable.¹	
9		This DTR updates the SUT from Software Version CIC 4.0 SU1 to CIC 4.0 SU2, which includes periodic maintenance updates.	
NOTE: 1. The SUT is IPv6 dual stack capable; however, the IP end instruments are not. DISA adjudicated this as minor on 22 May 2012 with the vendor’s POA&M to support IPv6 EIs in new software update targeted for release in December 2012. The SUT will be subject to removal from the APL if the POA&M is not met.			
LEGEND:			
CIC	Customer Interaction Center	R2	Release 2
DTR	Desktop Review	SU	Software Update
IP	Internet Protocol	SUT	System Under Test
IPv6	Internet Protocol version 6		

4. The interoperability test summary of the SUT is indicated in Table 2. The PBX2 Capability Requirements (CRs) and Feature Requirements (FRs) are listed in Table 3. This interoperability test status is based on the SUT's ability to meet:

- DSN services for Network and Applications specified in Reference (c).
- PBX2 interface and signaling requirements for trunks/lines specified in Reference (d) verified through JITC testing and/or vendor submission of LoC.
- PBX2 CRs/FRs specified in Reference (d) verified through JITC testing and/or vendor submission of LoC.
- The overall system interoperability performance derived from test procedures listed in Reference (g).

Table 2. SUT Interoperability Test Summary

DSN Trunk Interfaces				
Interface & Signaling		Critical	Status	Remarks
T1 CAS (DTMF)		No ¹	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
E1 CAS (DTMF)		No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
T1 ISDN PRI NI 1/2 (ANSI T1.607)		No ¹	Certified	Met all critical CRs and FRs however is not required for a PBX2. ²
E1 ISDN PRI (ITU-T Q.931)		No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
DSN Line Interfaces				
Interface & Signaling		Critical	Status	Remarks
2-Wire Analog (GR-506-CORE)		Yes	Certified	Met all critical CRs and FRs.
ISDN BRI NI 1/2		No	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
2-Wire Proprietary Digital		No	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
VoIP (Ethernet IEEE 802.3u)		No	Certified	Met all critical CRs and FRs with the following minor exception: The Polycom Sound Point IP EI are IPv4 only and are not certified for shared access. ³
DSN Features and Capabilities				
Feature/Capability		Critical	Status	Remarks
Common Features		Yes	Certified	Met all critical CRs and FRs.
Attendant		No	Certified	Met all critical CRs and FRs.
Public Safety		Yes	Certified	Met all critical CRs and FRs for the basic 911.
Call Processing		Yes	Certified	Met all critical CRs and FRs.
ISDN Services		No	Certified	Met all critical CRs and FRs with the T1 ISDN PRI interface.
Synchronization		Yes	Certified	Met all critical CRs and FRs.
VoIP System		No	Certified	Met all critical CRs and FRs. ⁴
Security		Yes	Certified	See note 5.
Network Gateways				
Gateway	Interface & Signaling	Critical	Status	Remarks
PSTN	T1 CAS (DTMF)	No ¹	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
	E1 CAS (DTMF)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
	T1 ISDN PRI NI 1/2 (ANSI T1.607)	No ¹	Certified	Met all critical CRs and FRs.
	E1 ISDN PRI (ITU-T Q.931)	No (Europe only)	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
	Ground Start Line (GR-506-CORE)	No	Not Tested	This interface is not supported by the SUT and is not required for a PBX2.
	Loop Start Line (GR-506-CORE)	No	Certified	Met all critical CRs and FRs with an LoC.

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Table 2. SUT Interoperability Test Summary (continued)

NOTES:

1. The UCR 2008 does not specify a required interface for a PBX2. A PBX2 switch must support at least T1 CAS or T1 PRI.
2. The vendor included the Audiocodes M800 T1 PRI with Patch 6.20A.059 as part of the SUT to accommodate secure call capability.
3. The SUT Polycom Sound Point IP EIs only support IPv4. This was adjudicated by DISA on 22 May 2012 as minor with the vendors Plan of Action and Milestone to support Polycom IPv6 EIs in new software targeted for release in December 2012.. The Polycom IP EIs have the capability of shared access (data connection); however, this was not tested and is not certified for joint use. Shared access is conditional for a PBX2.
4. The SUT is IPv6 dual stack capable; however, the IP end instruments are not. DISA adjudicated this as minor on 22 May 2012 with the vendor's POA&M to support IPv6 EIs in new software update targeted for release in December 2012. The SUT will be subject to removal from the APL if the POA&M is not met.
5. Security is tested by DISA-led Information Assurance test teams and published in a separate report, Reference (f).

LEGEND:

802.3u	Standard for carrier sense multiple access with collision detection at 100 Mbps	ITU-T	International Telecommunication Union - Telecommunication Standardization Sector
ANSI	American National Standards Institute	LoC	Letters of Compliance
ASD/NII	Assistant Secretary of Defense for Networks and Information Integration	LSSGR	Local Access and Transport Area (LATA) Switching Systems Generic Requirements
BRI	Basic Rate Interface	Mbps	Megabits per second
CAS	Channel Associated Signaling	NI 1/2	National ISDN Standard 1 or 2
CRs	Capability Requirements	OAM	Operations Administration and Management
DISA	Defense Information Systems Agency	PBX2	Private Branch Exchange 2
DSN	Defense Switched Network	PRI	Primary Rate Interface
DSS1	Digital Subscriber Signaling 1	PSTN	Public Switched Telephone Network
DTMF	Dual Tone Multi-Frequency	Q.931	Signaling Standard for ISDN
E1	European Basic Multiplex Rate (2.048 Mbps)	SUT	System Under Test
FRs	Feature Requirements	T1	Digital Transmission Link Level 1 (1.544 Mbps)
GR	Generic Requirement	T1.607	ISDN Layer 3 Signaling Specification for Circuit Switched Bearer Service for DSS1
GR-506-CORE	LSSGR: Signaling for Analog Interfaces	UCR	Unified Capabilities Requirements
IEEE	Institute for Electrical and Electronics Engineers	VoIP	Voice over Internet Protocol
IPv6	Internet Protocol version 6		
SDN	Integrated Services Digital Network		

Table 3. PBX2 Requirements

DSN Trunk Interfaces				
Interface	Critical	Requirements Required or Conditional		References
T1 CAS (MFR1, DTMF, DP)	No	Trunking	<ul style="list-style-type: none"> • Direct Inward Dialing (C) • National ISDN 1/2 Primary Access (C) • ITU-T ISDN Primary Access (Europe only) (C) • Normal Wink Start Operations (C) • Glare Operation (C) • Abnormal Wink Start (C) • Glare Resolution (C) • Call for Service Timing (C) • Guard Timing (C) • Satellite Interface (C) • Disconnect Control (C) • Reselect and Retrial (C) • Off-Hook Supervision Transition (C) • Dial-Pulse Signals (C) • DTMF Signaling (C) • DSN ISDN User-to-Network Signaling (C) • Application (C) • Physical Layer (C) • Data Link Layer (C) • Data Link Connection (C) • Peer-to-Peer Procedures of Data-Link Layer (C) • Layer 3 DSN User-to-Network Signaling (C) • DSN User-to-Network Signaling for Circuit-Switched Bearer Services (C) • Sequence of Messages for DSN Circuit-Switched Calls (C) • Message Functional Definition and Content (C) • General Message Format and Information Elements Coding (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.1.3.2 • UCR Section 5.2.1.3.4.1 • UCR Section 5.2.1.3.4.2 • UCR Section 5.2.4.3.3.1.1 • UCR Section 5.2.4.3.3.1.2 • UCR Section 5.2.4.3.3.2 • UCR Section 5.2.4.3.3.2.2 • UCR Section 5.2.4.3.5 • UCR Section 5.2.4.3.6 • UCR Section 5.2.4.3.7 • UCR Section 5.2.4.3.8 • UCR Section 5.2.4.3.9 • UCR Section 5.2.4.3.10 • UCR Section 5.2.4.4.1 • UCR Section 5.2.4.4.2 • UCR Section 5.2.4.7.1 • UCR Section 5.2.4.7.1.1 • UCR Section 5.2.4.7.1.2 • UCR Section 5.2.4.7.1.3 • UCR Section 5.2.4.7.1.3.1 • UCR Section 5.2.4.7.1.3.2 • UCR Section 5.2.4.7.1.4 • UCR Section 5.2.4.7.1.4.2 • UCR Section 5.2.4.7.1.4.3 • UCR Section 5.2.4.7.1.4.4 • UCR Section 5.2.4.7.1.4.5
E1 CAS (MFR1, DTMF, DP)	No (Europe only)		<ul style="list-style-type: none"> • Supplementary Services (C) • Transmission (R) • PCM-24 Digital Trunk Interface (R) • Interface Characteristics (R) • Supervisory Channel Associated Signaling (C) • Clear Channel Capability (C) • Alarm and Restoral Requirements (C) • PCM-30 Digital Trunk Interface (Europe only) (C) • Interoperation of PCM-24 and PCM-30 (C) • Analog Trunk Interface (C) • Integrated Digital Loop Carrier (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.4.7.1.4.6 • UCR Section 5.2.5 • UCR Section 5.2.6.1 • UCR Section 5.2.6.1.1 • UCR Section 5.2.6.1.2 • UCR Section 5.2.6.1.3 • UCR Section 5.2.6.1.4 • UCR Section 5.2.6.2 • UCR Section 5.2.6.3 • UCR Section 5.2.6.4 • UCR Section 5.2.6.5
T1 ISDN PRI NI 1/2 (ANSI T1.607)	No			
E1 ISDN PRI (ITU-T Q.931)	No (Europe only)	Voice	<ul style="list-style-type: none"> • MOS (R) • Secure calls (C) 	<ul style="list-style-type: none"> • UCR 5.2.12.8.2.1 • CJCSI 6215.01C
		Facsimile	<ul style="list-style-type: none"> • Analog: ITU-T T.4 (R) 	<ul style="list-style-type: none"> • DISR
		Data	<ul style="list-style-type: none"> • Modem (VBD) (R) • 56 kbps switched data (C: PRI only) • 64 kbps switched data (C: PRI only) • NX56 synchronous BER (C: PRI only) • NX64 synchronous BER (C: PRI only) • Secure data (STE/STU-III) (C) 	<ul style="list-style-type: none"> • CJCSI 6215.01C • UCR Section 5.2.2.9.6 • UCR Section 5.2.2.9.6 • UCR Section 5.2.2.9.6 • UCR Section 5.2.2.9.6 • CJCSI 6215.01C
		VTC	<ul style="list-style-type: none"> • ITU-T H.320 (R: PRI only) 	<ul style="list-style-type: none"> • FTR 1080B-2002

Table 3. PBX2 Requirements (continued)

DSN Line Interfaces				
Interface	Critical	Requirements Required or Conditional		References
2-Wire Analog	Yes	Access	<ul style="list-style-type: none">• Individual Line (R)• PBX Line (C)• National ISDN 1/2 Basic Access (C)• Analog Line (C)• Loop Start Line (R: 2-Wire Analog only)• Reverse Battery (C)• S/T Reference Point (ISDN BRI) (C)	<ul style="list-style-type: none">• UCR Section 5.2.1.1.1• UCR Section 5.2.1.3.1• UCR Section 5.2.1.3.3• UCR Section 5.2.1.3.5• UCR Section 5.2.4.2.1• UCR Section 5.2.4.3.1• UCR Section 5.2.4.7.1.2.1
ISDN BRI NI 1/2	No			
2-Wire Proprietary Digital	No		Voice	<ul style="list-style-type: none">• MOS (R)• Secure Calls (C)
		Facsimile	<ul style="list-style-type: none">• Analog: ITU-T T.4 (R)	<ul style="list-style-type: none">• DISR
		Data	<ul style="list-style-type: none">• Modem (VBD) (R)• Secure data (STE/STU-III) (C)	<ul style="list-style-type: none">• CJCSI 6215.01C• CJCSI 6215.01C
		VTC	<ul style="list-style-type: none">• ITU-T H.320 (R: BRI only)	<ul style="list-style-type: none">• FTR 1080B-2002
DSN Features & Capabilities				
Feature/ Capability	Critical	Requirements Required or Conditional		References
Common Features	Yes	<ul style="list-style-type: none">• Individual Lines (R)• Call waiting (C)• Three-way calling (C)• Add-on transfer, conference calling, and call hold (C)• Call Transfer Individual – All calls (C)• Call Transfer - Internal Only (C)• Call Transfer – Individual – Incoming Only/Add-On Consultation Hold – Incoming Call (C)• Call Transfer – Outside (C)• Call Transfer – Add-On Restricted Station (C)• Call Transfer – Attendant (C)• Call Hold (C)• Conference Calling – Six Way Station Controlled (C)• Call forwarding Variable (C)• Call Forward Busy Line (C)• Call Forwarding – Don’t Answer – All Calls (C)• Selective Call Forwarding (C)• Call pick-up (C)		<ul style="list-style-type: none">• UCR Section 5.2.4.7.1.2.1• UCR Section 5.2.1.1.5.1• UCR Section 5.2.1.1.6• UCR Section 5.2.1.1.7• UCR Section 5.2.1.1.7.1• UCR Section 5.2.1.1.7.2• UCR Section 5.2.1.1.7.3• UCR Section 5.2.1.1.7.3• UCR Section 5.2.1.1.7.4• UCR Section 5.2.1.1.7.5• UCR Section 5.2.1.1.7.6• UCR Section 5.2.1.1.7.7• UCR Section 5.2.1.1.7.8• UCR Section 5.2.1.1.8.1• UCR Section 5.2.1.1.8.2• UCR Section 5.2.1.1.8.3• UCR Section 5.2.1.1.8.4• UCR Section 5.2.1.1.9.1
Attendant	No	<ul style="list-style-type: none">• Attendant Features (C)		<ul style="list-style-type: none">• UCR Section 5.2.1.2
Public Safety	Yes	<ul style="list-style-type: none">• Emergency Service (911) Caller (R)• Emergency Service (911) Public Safety Answering Service (C)• Enhanced Emergency Service (E911) (C)		<ul style="list-style-type: none">• UCR Section 5.2.1.4.1.1• UCR Section 5.2.1.4.1.2• UCR Section 5.2.1.4.1.3
Call Processing	Yes	<ul style="list-style-type: none">• Origination Treatment (R)• Originating Busy (R)• Termination Treatment (R)• Busy or Idle Status (C)• Release Treatment (R)• Interruption Treatment (R)• Connections (R)• Class of Service (C)• E&M Lead Signaling States (C)• 4-Wire Analog User Access Lines (C)• 2-Wire User Access Lines (C)• Interswitch and Intraswitch Dialing (C)• Calling Name Delivery (C)• Calling Number Delivery (C)• Screening (C)		<ul style="list-style-type: none">• UCR Section 5.2.3.1.1• UCR Section 5.2.3.1.1.1• UCR Section 5.2.3.1.2• UCR Section 5.2.3.1.2.1• UCR Section 5.2.3.1.3• UCR Section 5.2.3.1.4• UCR Section 5.2.3.1.5• UCR Section 5.2.3.1.6• UCR Section 5.2.3.3.1• UCR Section 5.2.3.3.2• UCR Section 5.2.3.3.3• UCR Section 5.2.3.5.1.2• UCR Section 5.2.3.5.1.8.1• UCR Section 5.2.3.5.1.8.2• UCR Section 5.2.3.5.8

Table 3. PBX2 Requirements (continued)

DSN Features & Capabilities (continued)			
Feature/ Capability	Critical	Requirements Required or Conditional	References
ISDN Services	No	<ul style="list-style-type: none"> • BRI Access, Call Control and Signaling (C) • Uniform Interface Configuration for BRIs (C) • BRI Features (C) • PRI Access, Call Control and Signaling (C) • PRI Features (C) • Packet Data Features and Capabilities (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.9.2 Table 5.2.9.-1 • UCR Section 5.2.9.2 Table 5.2.9-2 • UCR Section 5.2.9.2 Table 5.2.9-3 • UCR Section 5.2.9.2 Table 5.2.9-4 • UCR Section 5.2.9.2 Table 5.2.9-5 • UCR Section 5.2.9.2 Table 5.2.9-6
Synchronization	Yes	<ul style="list-style-type: none"> • Line timing mode (C) • Internal Stratum 4 (R) • Synchronization Performance Monitoring Criteria (C) • DS1 Traffic Interfaces (C) • DS0 Traffic Interconnects (C) 	<ul style="list-style-type: none"> • UCR Section 5.2.10.1.1.2 • UCR Section 5.2.10.1.2.2 • UCR Section 5.2.10.2 • UCR Section 5.2.10.3 • UCR Section 5.2.10.4
Security	Yes	<ul style="list-style-type: none"> • GR-815, STIGs, and DoDI 8510.bb (DIACAP) (R) 	<ul style="list-style-type: none"> • UCR Section 3
VoIP System	No	<p>VoIP function is conditional. If VoIP is provided, all of the following requirements must be met:</p> <ul style="list-style-type: none"> • Voice Quality with MOS of 4.0 or better (R) • ITU-T G.711 PCM CODEC (R) • MLPP (C) • Security (R) • Network management (C) • System timing (R) • Latency \leq 60 milliseconds (R) • IPv6 capable (R) • Service Class Tagging (R) 	<ul style="list-style-type: none"> • UCR section 5.2.12.8.2.1 • UCR section 5.2.12.8.2.2 • UCR section 5.2.12.8.2.3 • UCR section 5.2.12.8.2.4 • UCR section 5.2.12.8.2.5 • UCR section 5.2.12.8.2.6 • UCR section 5.2.12.8.2.7 • UCR section 5.2.12.8.2.8 • UCR section 5.2.12.8.2.9
Network Gateways			
Gateway	Critical	Requirements Required or Conditional	References
PSTN	No	<p>Trunking</p> <ul style="list-style-type: none"> • Positive Identification Control (C) • On-Netting (C) • Off-Netting (C) • Loop Start Line (C) • Ground Start Line (C) • Immediate Start (C) • Delay Dial (C) 	<ul style="list-style-type: none"> • CJCSI 6215.01C • CJCSI 6215.01C • CJCSI 6215.01C • UCR Section 5.2.4.2.1 • UCR Section 5.2.4.2.2 • UCR Section 5.2.4.3.2 • UCR Section 5.2.4.3.4

Table 3. PBX2 Requirements (continued)

LEGEND:					
ANSI	American National Standards Institute	FTR	Federal Telecommunications Recommendation	PCM-24	Pulse Code Modulation - 24 Channels
BER	Bit Error Ratio	FTR 1080B	Video Teleconferencing Services	PCM-30	Pulse Code Modulation - 30 Channels
BRI	Basic Rate Interface	GR	Generic Requirement		
C	Conditional	GR-815	Generic Requirements For Network Element/Network System (NE/NS) Security	PRI	Primary Rate Interface
CAS	Channel Associated Signaling			PSTN	Public Switched Telephone Network
CJCSI	Chairman of the Joint Chiefs of Staff Instruction	H.320	Standard for Narrowband VTC	Q.931	Signaling Standard for ISDN Required
DIACAP	DoD Information Assurance Certification and Accreditation Process	ISDN	Integrated Services Digital Network	R	ISDN BRI 4-wire interface
		IT	Information Technology	STE	Secure Terminal Equipment
		ITU-T	International Telecommunication Union - Telecommunication Standardization Sector	STIGs	Security Technical Implementation Guides
DISR	DoD IT Standards Registry			STU-III	Secure Telephone Unit -3rd generation
DoD	Department of Defense				
DoDI	DoD Instruction	kbps	kilobits per second		
DP	Dial Pulse	Mbps	Megabits per second	T1	Digital Transmission Link Level 1 (1.544 Mbps)
DS0	Digital Signal Level 0	MFR1	Multi-Frequency Recommendation 1	T1.607	ISDN Layer 3 Signaling Specification for Circuit Switched Bearer Service for DSS1
DS1	Digital Signal Level 1 (1.544 Mbps) (2.048 Mbps European)	MLPP	Multi-Level Precedence and Preemption		Standardization of Group 3 facsimile terminals for document transmission
DSN	Defense Switched Network	MOS	Mean Opinion Score	T.4	Unified Capabilities Requirements
DSS1	Digital Subscriber Signaling 1	NI 1/2	National ISDN Standard 1 or 2		Variable bit data
		NX56	Data format restricted to multiples of 56 kbps	UCR	Voice over Internet Protocol
DTMF	Dual Tone Multi-Frequency			VBD	Video Teleconferencing
E1	European Basic Multiplex Rate (2.048 Mbps)	NX64	Data format restricted to multiples of 64 kbps	VoIP	
E911	Enhanced 911 Service	PBX	Private Branch Exchange	VTC	
E&M	Ear and Mouth	PBX2	Private Branch Exchange 2		

5. The SUT system configurations for software version 4.0 SU2 are listed in Table 4. The SUT was verification and validation tested in an operationally realistic environment to determine interoperability with the Siemens EWSD DSN switch noted in Table 4. The Siemens DSN switch tested is not intended to identify the only switch certified with the SUT. The SUT is certified with switching systems listed on the Unified Capabilities (UC) Approved Products List (APL) that offer the same certified interfaces. Figure 1 depicts a notional test diagram. Figure 2 depicts the SUT CIC Software Version 4.0 SU2 test diagram.

Table 4. SUT CIC Software Version 4.0 SU2 Tested System Configurations

System Name	Equipment		
Required Ancillary Equipment	Active Directory		
	Public Key Infrastructure		
	SysLog Server		
System Name	Software Release		
Siemens EWSD	19d with Patch Set 46		
Interactive Intelligence CIC Rel. 4.0 SU2	Hardware	Card Name	Software/Firmware (see note.)
		Part Number/Name	
	<u>Audiocodes M800 T1 PRI</u>	NA	<u>6.20A.059</u> <u>Embedded Linux Kernel v2.6.21.7</u>
	Audiocodes M3000 PRI	NA	6.20A.055.001 Embedded Linux Kernel v2.6.21.7
	CIC 4.0 Primary	HP Proliant DL 380 G6	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	CIC 4.0 Secondary	HP Proliant DL 380 G5	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	Database Server	HP Server DL 320 G5	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	Audiocodes EMS Server	Sun-Fire-V215	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	Media Server 4.0 (x2)	HP Proliant DL 360 G5	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	<u>Windows 7</u> <u>Application Workstation</u> <u>(site-provided)</u>	NA	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
	Windows XP Pro Management Workstation (site-provided)	NA	<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>
			<u>IC 4.0.2</u> <u>Internet Explorer 9</u> Microsoft .Net Framework 4.0 MSXML 6.20.2003.0 SP2 <u>Windows Server 2008 R2 SP1</u>

Table 4. SUT CIC Software Version 4.0 SU2 Tested System Configurations (continued)

System Name	Hardware	Card Name	Software/Firmware
Interactive Intelligence CIC Rel. 4.0 SU2	<u>Audiocodes M800 FXS</u>	NA	<u>6.20A.059</u>
	Audiocodes MP124	NA	<u>Embedded Linux Kernel v2.6.21.7</u>
			6.20A.055.001
			pSOS 2.5.4
Telephones			
Telephone Type	Model		Software/Firmware
IP ¹	Polycom SoundPoint 300 series		3.3.1.0769
	Polycom SoundPoint 400 series		
	Polycom SoundPoint 500 series w/ extension module		
	Polycom SoundPoint 600 series w/ extension module		
Analog	Generic		NA
NOTE: 1. The SUT is IPv6 dual stack capable; however, the IP end instruments only support IPv4. DISA adjudicated this as minor on 22 May 2012 with the vendor's POA&M to support IPv6 EIs in new software update targeted for release in December 2012. The SUT will be subject to removal from the APL if the POA&M is not met.			
NOTE: The hardware and software applications bolded and underlined depict the changes from the baseline Interoperability Certification.			
LEGEND:			
CIC	Contact Interaction Center	OpenSSL	Open Secure Sockets Layer
EMS	Element Management System	PRI	Primary Rate Interface
EWSD	Elektronisches Wählsystem Digital	Pro	Professional
DL	Product Name	pSOS	Provably Secure Operating System
FXS	Foreign Exchange Station	R	Release
HMP	Host Media Processing	Rel.	Release
HP	Hewlett-Packard	SE	Standard Edition
ININ	Interactive Intelligence Corp	SP	Service Pack
IC	Interaction Center	SPARC	Sun Microsystems Architecture
IP	Internet Protocol	SQL	Structured Query Language
M	Mediant	SU	Service Update
Mbps	Megabits per second	T1	Digital Transmission Link Level 1 (1.544 Mbps)
MDAC	Microsoft Data Access Components	v	version
MSXML	Microsoft Extensible Markup Language	XP	Experience
NA	Not Applicable		

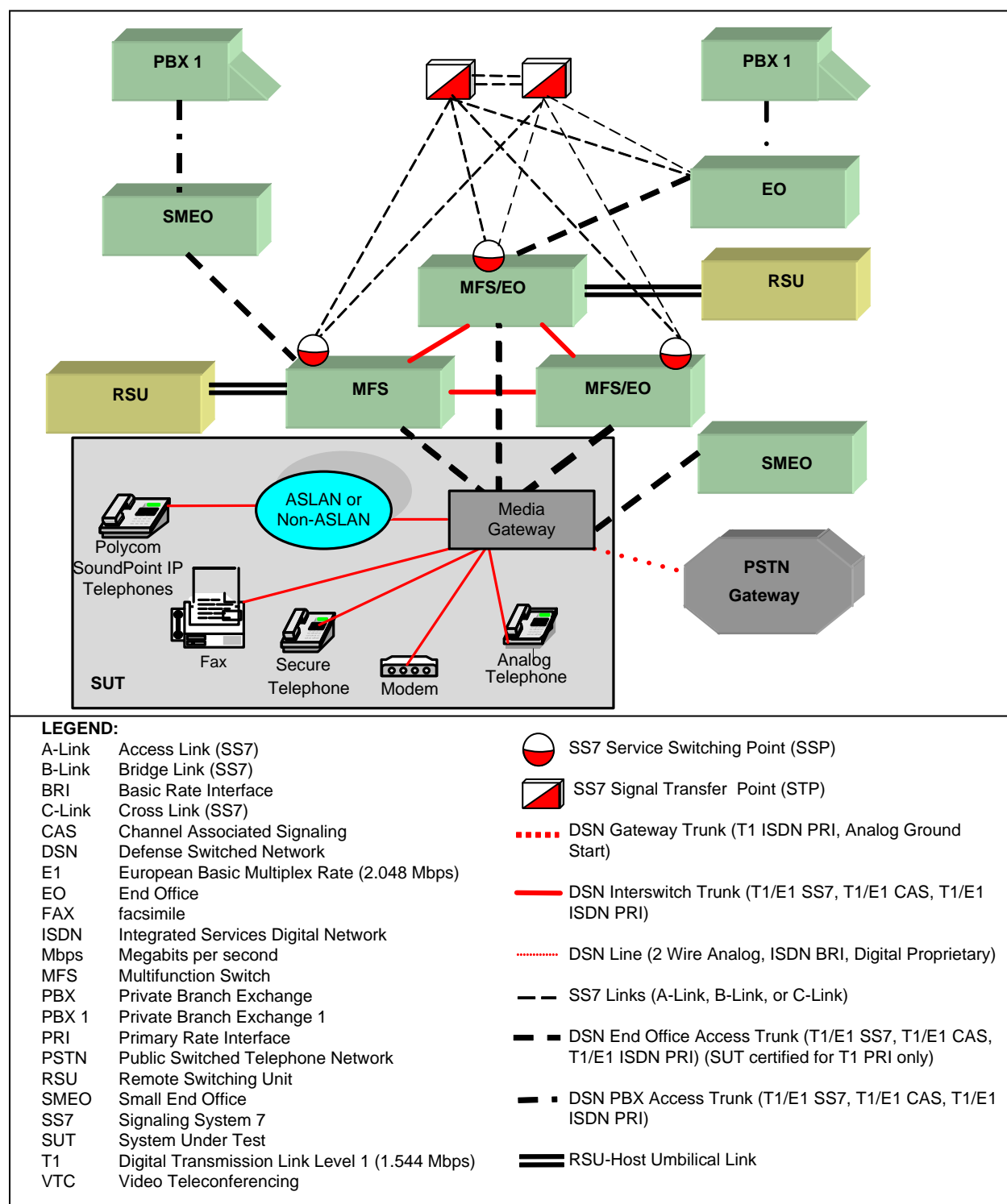


Figure 1. SUT Notional Test Configuration

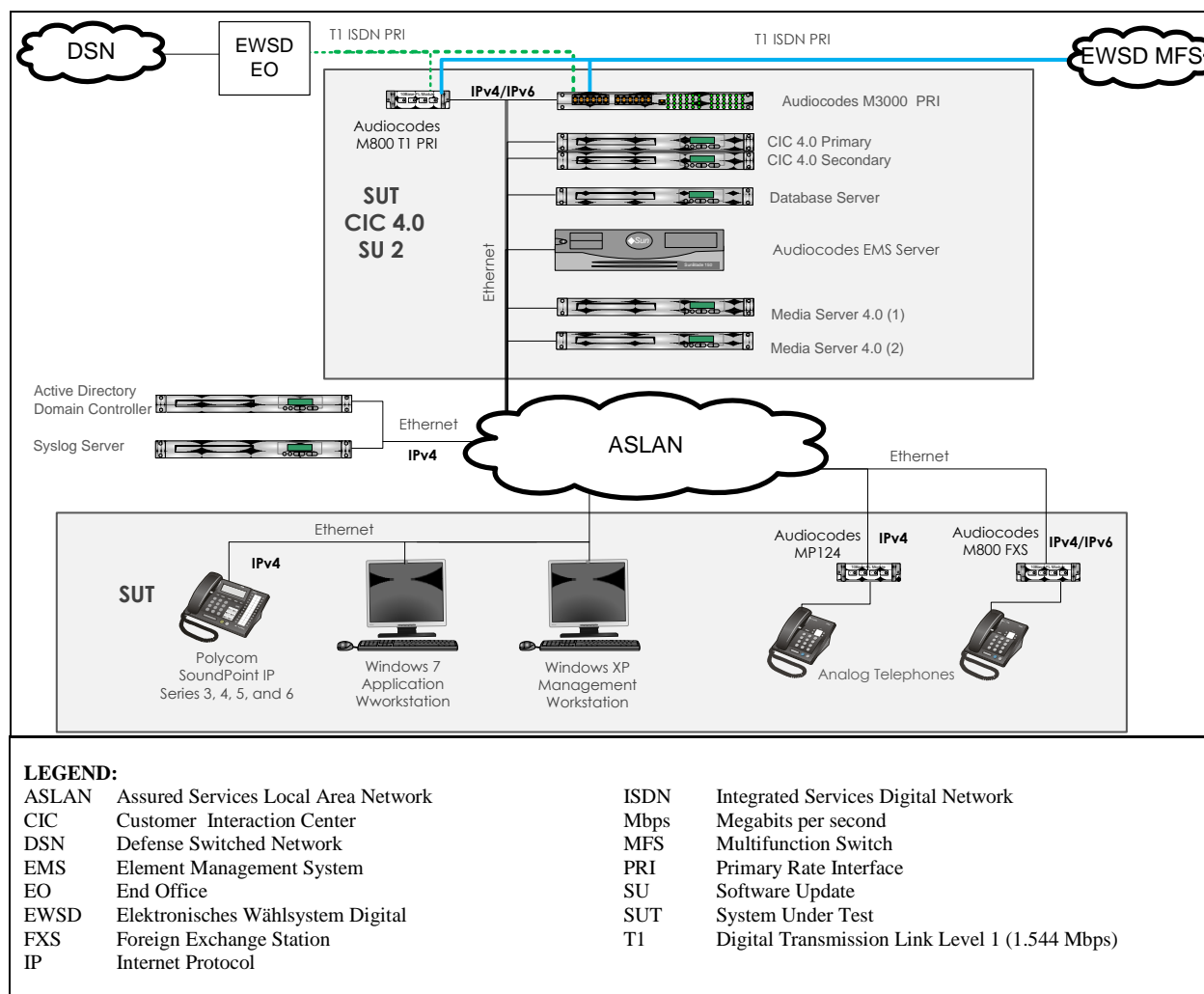


Figure 2. SUT 4.0 SU2 Test Configuration


6. No detailed test report was developed in accordance with the Program Manager's request. JITC distributes interoperability information via the JITC Electronic Report Distribution (ERD) system, which uses Unclassified-But-Sensitive Internet Protocol Router Network (NIPRNet) e-mail. More comprehensive interoperability status information is available via the JITC System Tracking Program (STP). The STP is accessible by .mil/gov users on the NIPRNet at <https://stp.fhu.disa.mil>. Test reports, lessons learned, and related testing documents and references are on the JITC Joint Interoperability Tool (JIT) at <http://jit.fhu.disa.mil> (NIPRNet). Information related to DSN testing is on the Telecom Switched Services Interoperability (TSSI) website at <http://jitc.fhu.disa.mil/tssi>. Due to the sensitivity of the information, the Information Assurance Accreditation Package (IAAP) that contains the approved configuration and deployment guide must be requested directly through government civilian or uniformed military personnel from the Unified Capabilities Certification Office (UCCO), e-mail: disa.meade.ns.list.unified-capabilities-certification-office@mail.mil.

JITC Memo, JTE, Extension of the Special Interoperability Test Certification of Interactive Intelligence[®] Inc. from Customer Interaction Center[™] (CIC) Release 3.0 Software Update (SU) 14 to CIC Release 4.0 SU2

7. The JITC point of contact is Ms. Anita Mananquil, DSN 879-5164, commercial (520) 538-5164, FAX DSN 879-4347, or e-mail to anita.l.mananquil.civ@mail.mil. The JITC's mailing address is P.O. Box 12798, Fort Huachuca, AZ 85670-2798. The tracking number for the SUT is 0918002.

FOR THE COMMANDER:

Enclosure a/s


for RICHARD A. MEADOR
Chief
Battlespace Communications Portfolio

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NSG Interoperability Assessment Team

DOT&E, Netcentric Systems and Naval Warfare

Medical Health Systems, JMIS IV&V

HQUSAISEC, AMSEL-IE-IS

UCCO

ADDITIONAL REFERENCES

- (c) Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 6215.01C, "Policy for Department of Defense Voice Services with Real Time Services (RTS)," 9 November 2007
- (d) Office of the Assistant Secretary of Defense, "Department of Defense Unified Capabilities Requirements 2008," 22 January 2009
- (e) Joint Interoperability Test Command, Memo, JTE, "Special Interoperability Test Certification of Interactive Intelligence[®] Inc. Customer Interaction Center[™] (CIC) Release 3.0 Software Update (SU) 9," 6 May 2011
- (f) Joint Interoperability Test Command, Memo, "Information Assurance (IA) Assessment of Interactive Intelligence Corporation (ININ) Customer Interaction Center (CIC) Release (Rel.) 3.0 (TN0918002)," 6 April 2011
- (g) Joint Interoperability Test Command, "Defense Switched Network Generic Switch Test Plan (GSTP), Change 2," 2 October 2006